BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date: May 18, 2005

Division: Public Safety

Bulk Item: Yes X No ___

Department: Emergency Management

Staff Contact: Tom Cullen

AGENDA ITEM WORDING:
Approval to apply and for the Mayor to sign a grant application to the Florida Department of Community Affairs for a Hazard Mitigation Grant in the amount of $4,500,000.00, to relocate, design and construct a permanent and dedicated Emergency Operations Center (EOC)

ITEM BACKGROUND:
The Department of Community Affairs has determined that Monroe County is not in compliance with RULE 9G-19, FAC, due to not being able to activate its current Emergency Operations Center within one hour. As such, Monroe County could be in jeopardy of losing annual Emergency Management Base Grant funding from the Department of Community Affairs. The Hazard Mitigation Grant Program is a federal program intended to implement intermediate and long-term mitigation measures designed to reduce or prevent the effects of natural and man-made disasters in communities.

PREVIOUS REVELANT BOCC ACTION:
N/A

CONTRACT/AGREEMENT CHANGES: This is not a contract.

STAFF RECOMMENDATIONS:
Approval

TOTAL COST: _____ **BUDGETED:** Yes ___ No ___

COST TO COUNTY: _____ **SOURCE OF FUNDS:** _____

REVENUE PRODUCING: Yes ___ No ____ **AMOUNT PER MONTH:** _____

APPROVED BY: County Atty N/A OMB/Purchasing N/A Risk Management N/A

DIVISION DIRECTOR APPROVAL: 5/3/2005
James R. "Reggie" Parks

DOCUMENTATION: Included X Not Required____

DISPOSITION:_____ **AGENDA ITEM #**_____

APRIL 2005

Monroe County, Florida Emergency Operations Center (EOC)

Proposed Project:

"Relocation of the Emergency Operations Center, Marathon, Florida"

Prepared by:

Monroe County Office of Emergency Management
490 63rd Street, Suite 150
Marathon, FL. 33050
Phone: (305)289-6018
Fax: (305)289-6333

Hazard Mitigation Grant Program Application FY 2005

4/29/05

STATE OF FLORIDA - JOINT HAZARD MITIGATION GRANT PROGRAM & FLOOD MITIGATION ASSISTANCE APPLICATION

THIS SECTION FOR STATE USE ONLY

FEMA-_____-DR-FL ☐ Standard HMGP ☐ Standard FMA ☐ 5% Initiative Application ☐ Initial Submission or ☐ Application Complete ☐ Re- Submission

Support Documents
☐ Conforms w/ State 409 Plan
☐ In Declared Area
☐ Statewide

Eligible Applicant
☐ State or Local Government
☐ Private Non-Profit (Tax ID Received)
☐ Recognized Indian Tribe or Tribal Organization

Project Type(s)
☐ Wind
☐ Flood
☐ Other: _____

Community NFIP Status: (Check all that apply)
☐ Participating Community ID#:_____
☐ In Good Standing ☐ Non-Participating ☐ CRS

Reviewer Phone#:_____
Reviewer Fax#:_____
Reviewer E-Mail:_____
Date Application Received:_____

State Application ID:_____
State Reviewer:_____

Signature:_____ Date:_____

This application is for all Federal Emergency Management Agency (FEMA Region IV) Hazard Mitigation Grant Program (HMGP) and Flood Mitigation Assistance (FMA) proposals. Please complete ALL sections and provide the documents requested. If you require technical assistance with this application, please contact your State Emergency Management Division at ***(850) 922-5269.***

A. To Fill Out This Application: Complete all sections, which correspond with the type of proposed project

General Application Sections:	pp.1-5: *All* Applicants must complete these sections
Environmental Review:	pp. 6-9: *All* Applicants must complete these sections
Maintenance Agreement:	p. 10: *Any* Applications involving public property, public ownership, or management of property
Acquisition Worksheet:	pp.11-13: *Acquisition Projects only* -- one worksheet per structure
Elevation Worksheet:	pp.14-18: *Elevation Projects only* -- one worksheet per structure
Drainage Worksheet:	p. 19: *Drainage Projects only*
Wind Retrofit Worksheet:	pp. 20-22: *Wind retrofit projects only* ***(HMGP only)*** -- one worksheet per structure pp. 23-24: *Wind retrofit/shelter projects only* ***(HMGP only)*** -- one worksheet per structure
Attachment A:	FEMA Form 90-49 (Request for Public Assistance): All Applicants must complete, if applicable.
Attachment B:	HMGP/FMA Application Completeness Checklist: All applicants are recommended to complete this checklist

B. Applicant Information

FEMA-1539-DR-FL DISASTER NAME: Hurricane Charley *Ex., FEMA-1539-DR-FL; Hurricane Charley*

Title / Brief Descriptive Project Summary: Relocation of the Emergency Operations Center (EOC) Marathon, Florida

1. Applicant (Organization): **Monroe County Florida**
2. Applicant Type:
   ☒ State or Local Government ☐ Recognized Native American Tribe ☐ Private Non-Profit
3. County: **Monroe**
4. State Legislative District(s): **40 (Senate) & 120 (House)** Congressional District(s): **20th**
5. Federal Tax I.D. Number: **59-6000749**
6. FIPS Code*: _____ (*if your FIPS code is not known, please fill out FEMA Form 90-49 (Attachment A) so that the Department may obtain a FIPS code for you)
7. National Flood Insurance Program (NFIP) Community Identification Number (this number can be obtained from the FIRM map for your area): **125129**
8. NFIP Community Rating System Class Number: _____
9. NFIP Last Community Assistance Visit Date: _____
10. Attach proof of current Flood Insurance Policy **(FMA only)**. Flood Insurance Policy Number: _____

Attach any continuations or additional items to this page (Form No. HMGP/FMA-001. Eff. 10/30/04)

STATE OF FLORIDA - JOINT HAZARD MITIGATION GRANT PROGRAM & FLOOD MITIGATION ASSISTANCE APPLICATION

11. **Point of Contact**
☐Ms. ☒Mr. ☐Mrs. First Name: **Thomas P.** Last Name: **Cullen, Jr.**
Title: **REP Coordinator**
Street Address: **490 63rd Street, Suite 150**
City: **Marathon** State: **FL** Zip Code: **33050**
Telephone:**13052896019** Fax: **13052896333**
Email Address (if available):**cullen-tom@monroecounty-fl.gov**
12. **Application Prepared by:** ☐Ms. ☒Mr. ☐Mrs. First Name: **James R.** Last: **Brush**
Title: **Professional Engineer (P.E.)** Telephone: **13054511938** Fax: **13052942164**
13. **Authorized Applicant Agent** ***(proof of authorization authority required)***
☒Ms. ☐Mr. ☐Mrs. First Name: Dixie Last Name: Spehar
Title: Mayor Telephone: 305-292-3440 Fax: 305-292-3466
Street Address: 502 Whitehead Street
City: Key West State: FL Zip Code: 33040

Signature:_____ Date: _____

14. All proposed projects should be included in the county's Local Mitigation Strategy (LMS).
Attach is a letter of endorsement for the project from the county's Local Mitigation Strategy Coordinator. ☒ Yes ☐ No

Section I. Project Description

A. Hazards to be Mitigated / Level of Protection

1. Select the type of hazards the proposed project will mitigate:
☒ Flood ☒ Wind ☒ Storm surge ☐ Other (list): _____

2. Identify the type of proposed project:
☐ Elevation and retrofitting of residential or non-residential structure
☐ Acquisition and relocation ☐ Acquisition and demolition
☐ Wind retrofit ☐ Minor drainage project that reduces localized flooding
☒ Other (please explain) Relocate the existing EOC to avoid flood, wind, storm surge & casualties

3. List the total number of persons that will be protected by the proposed project: **50**

4. Fill in the level of protection and the magnitude of event the proposed project will mitigate.
(e.g. 23 structures protected against the 100-year (1%) flood)
1 structure(s) protected against the **100** -year Flood (10, 25, 50, 100, or 500 year)

1 structure(s) protected against **155** mile per hour (mph) winds

5. ***Engineered projects only*** (e.g. Drainage Improvements), include (attach to this page) **ALL** engineering calculations and design plans used to determine the above level of protection.

6. Project will provide protection against the hazard(s) above for **50** years (i.e., what is the useful life of the project)

B. Project Description, Scope of Work, and Protection Provided (Must be Completed in Detail)

Describe, in detail, the existing problem, the proposed project, and the scope of work. Explain how the proposed project will ***solve*** the problem(s) and provide the level(s) of protection described in Part A. Also, if available, attach a vendor's estimate and/or a contractor's bid for the scope of work. ***Please ensure that each proposed project is mitigation and not maintenance.***

Description of the existing problems-The existing EOC is not in compliance with RULE 9G-19 that requires that the EOC be activated within one hour. Monroe County does not have a permanent and dedicated Emergency Operations Center (EOC). Currently, a room in a government building in Marathon Florida, known as the Board of County Commissioners (BOCC) room, is turned into a

Attach any continuations or additional items to this page (Form No. HMGP/FMA-001, Eff. 10/30/04)

makeshift temporary EOC when an emergency situation arises. The existing EOC may not be able to withstand a Category 5 Hurricane.

Attach any continuations or additional items to this page (Form No. HMGP/FMA-001, Eff. 10/30/04)

Describe the type(s) of protection that the proposed project will give- A relocated & permenent EOC will provide a fully engineered Category 5 (155 mph) structure that will protect EOC staff, allow compliance with Rule 9G-19 one hour response time, and will serve to protect the lives and property of residents and visitors of Monroe County by allowing a place for rapid decision making.

Scope of Work (describe in detail, what you are planning to do)-The project consists of relocating the existing EOC to different site and initiating the de-sign/build construction of a complete and usable dedicated Emergency Operations Center (EOC) to serve as a multi-use critical facility housing of an emergency response team comprised of six (6) fulltime Monroe County Emergency Management staff and up to 50 emergency response personnel during the emergency event. SEE ATTACHED NARRATIVE.

Describe any other on-going or proposed projects in the area that may impact, positively or negatively the proposed HMGP or FMA project-

Section II. Project Location (Fully describe the location of the proposed project.)

A. Site

1. Describe the physical location of this project, including street numbers (or neighborhoods) and zip codes; and if available, please provide precise longitude and latitude coordinates for the site utilizing a hand-held global positioning system (GPS) unit or the equivalent: The relocated EOC will be located at the Marathon Airport with frontage along Federal Highway US No.1, with runway access on the back side of the property, and centrally located within Monroe County. The relocated EOC facilty has an address of 9400 Oversea Highway, Marathon, FL 33050 and a latitude/longitude of 24 43 34.0007N/081 03 04.961W

2. Title Holder: **Monroe County**

3. Is the project site seaward of the Coastal Construction Control Line (CCCL)? ☐YES ☒NO

4. Provide the number of each structure type (listed below) in the project area that will be affected by the project. That is, ***all*** structures in project area.
   - ☐ Residential property
   - ☐ Businesses/commercial property
   - ☒ Public buildings
   - ☐ Schools/hospitals/houses of worship
   - ☐ Other

B. Flood Insurance Rate Map (FIRM) showing Project Site

☒ Attach two (2) copies of the FIRM map, a copy of the panel information from the FIRM, and, if available, the Floodway Map. ***FIRM maps are required for this application (if published for your area). Also, all attached maps must have the project site and structures clearly marked on the map.*** FIRMs are typically available from your local floodplain administrator who may be located in a planning, zoning, or engineering office. Maps can also be ordered from the Map Service Center at 1-800-358-9616. For more information about FIRMs, contact your local agencies or visit the FIRM site on the FEMA Web-page at **http://www.fema.gov/home/MSC/hardcopy.htm**			
Using the FIRM, determine the flood zone(s) of the project site (Check all zones in the project area).			
(see FIRM legend for flood zone explanations) (A Zone must be identified)			
☐	VE or V 1-30	☒	AE or A 1-30
☐	AO or AH	☐	A (no base flood elevation given)
☐	B or X (shaded)	☐	C or X (unshaded)
☐	Floodway		
☐ Coastal Barrier Resource Act (CBRA) Zone (Federal regulations strictly limit Federal funding for projects in this Zone; please coordinate with your state agency before submitting an application for a CBRA Zone project).			
☐ **If the FIRM Map for your area is not published,** please attach a copy of the Flood Hazard Boundary Map (FHBM) for your area, with the project site and structures clearly marked on the map.			

Attach any continuations or additional items to this page

C. City or County Map with Project Site and Photographs

☒ Attach a copy of a city or county scale map (large enough to show the entire project area) with the project site and structures marked on the map.

☒ Attach a USGS 1:24,000 TOPO map with project site ***clearly*** marked on the map.

☐ For **acquisition** or **elevation** projects, include copy of Parcel Map (Tax Map, Property Identification Map, etc.) showing each property to be acquired. The map should include the Tax ID numbers for each parcel, if possible.

☒ Attach photographs (at a minimum 2 photographs) for each project site per application. The photographs should be representative of the project area, including any relevant streams, creeks, rivers, etc. and drainage areas, which affect the project site or will be affected by the project. For each structure, please include the following angles: front, back and both sides.

Section III. Budget/Costs

In this section, provide details of all the estimated costs of the project. As this information is used for the Benefit-Cost Analysis, reasonable cost estimates are essential. Since project administrative costs are calculated on a sliding scale, ***do not*** include them in the budget. Also, **do not** include contingency costs in the budget.

A. Materials

Item	*Dimension*	*Quantity*	*Cost per Unit*	*Cost*
See Below				

B. Labor (Include equipment costs -- please indicate all "soft" or in-kind matches)

Description	*Hours*	*Rate*	*Cost*
See Below			

C. Fees Paid Include any other costs associated with the project.

Description of Task	*Hours*	*Rate*	*Cost*
See Below			

Total Estimated Project Cost $_____

Section IV. Estimated Budget/Costs

In this section, provide details of all the estimated costs of the project. As this information is used for the Benefit-Cost Analysis, Reasonable cost estimates are essential. Since project administrative costs are calculated on a sliding scale, ***do not*** include them in the budget. ***Also, do not*** include contingency costs in the budget.

A. Materials

Item	*Dimension*	*Quantity*	*Cost per Unit*	*Cost*

B. Labor (Include equipment costs – please indicate all "soft" or in-kind matces)

Description	*Hours*	*Rate*	*Cost*

C. Fees Paid (Include any other costs associated with the project)

Description of Task	*Hours*	*Rate*	*Cost*

	Item	*Dimension*	*Quantity*	*Cost per Unit*	*Total Cost*
•	Site Development, Utilities, & Building Construction	Sq Ft	20,000	$270	$5,400,000
•	Storage Tanks, Generator, Air filter System, Sprinkler System, & Peripherals.	LS	LS	-	180,000
			TOTAL ESTIMATED CONSTRUCTION COST		**$5,580,000**
			Engineering (@ 5.1%) includes survey & geotechnical		*$284,580*
			Permitting		*$15,000*
			Construction Inspection (@ 3%)		*$167,400*
			Total Engineering and Inspection Services		**$466,980**
			TOTAL ESTIMATED PROJECT COST		**$6,046,980**

Total Estimated Project Cost $ $6,046,980

Attach any continuations or additional items to this page

D. Funding Sources (round figures to the nearest dollar)

The maximum FEMA share for HMGP/ FMA projects is 75%. The other 25% can be made up of State and Local funds as well as in-kind services. Moreover, the FMA program requires that the maximum in-kind match be no more than 12.5% of the total project costs. HMGP/FMA funds may be packaged with other Federal funds, but other Federal funds (except for Federal funds which lose their Federal identity at the State level (such as CDBG, ARS, HOME) may not be used for the State or Local match.

Estimated FEMA Share $ 4,535,235 75 % of Total (maximum of 75%)

Non-Federal share

Estimated Local Share $ 1,511,745 25 % of Total (Cash)
$ _____ _____ % of Total (In-Kind)

Estimated State Share $ _____ _____ % of Total (Cash)
$ _____ _____ % of Total (In-Kind)

Other Agency Share $ S hares are to be determined after submittal of an DHS Grant Application _____ % of Total

(Identify Other Non-Federal Agency_____)

Total Funding sources from above $ 6,046,980 100 **Total %** (should equal 100%)

Other Non-FEMA Federal Funds $ To be determined (Do not include in total)

(Identify other Non-Federal Agency DHS)

E. Project Schedule

List the major milestones in this project by providing an estimated time-line for the critical activities.

Milestone [e.g. Demolition of 6 structures and removal of debris	*Number of Days to Complete* 1 month]
Preliminary Engineering and Survey	60 (2 mo.)
Engineering/Architectural Design	180 (6 mo.)
Permitting	50 (1.66 mo.)
Bidding of Design/Build Construction Project	50 (1.66 mo.)
Construction	360 (12 mo.)
Demobilization and Project Completion Approval	30
Total Days	730 24.33 (mo.)

Attach any continuations or additional items to this page

Section IV. Environmental Review and Historic Preservation Compliance

(NOTE: This application cannot be processed if this section is not completed.)

Because the HMGP/FMA are federally funded programs, all projects are required to undergo an environmental and historic preservation review as part of the grant application process. Moreover, all projects must comply with the National Environmental Policy Act (NEPA) and associated Federal, State, Tribal, and Local statutes to obtain funding. **NO WORK can be done prior to the NEPA review process. If work is done on your proposed project before the NEPA review is completed, it will NOT be eligible for Federal funding.**

1. The following information is required for the Environmental and Historic Preservation review:

All projects must have adequate documentation to determine if the proposed project complies with NEPA and associated statutes. The State Environmental Staff provide comprehensive NEPA technical assistance for Applicants, with their consent, to complete the NEPA review. The type and quantity of NEPA documents required to make this determination varies depending upon the project's size, location, and complexity. However, at a minimum, please provide the applicable documentation from this section to facilitate the NEPA compliance process.

- ☒ Detailed project description, scope of work, and budget/costs (Section I (p. 2) and Section III (p. 5) of this application).
- ☐ Project area maps (Section II, part B & C of this application (pp. 3-4)).
- ☒ Project area/structure photographs (Section II, part C of this application (p. 4)).
- ☒ Preliminary project plans.
- ☒ Project alternatives description and impacts (Section IV of the application (pp. 6-8)).
- ☒ Please complete the applicable project worksheets. Dates of construction are required for all structures.
- ☒ Provide any applicable information or documentation referenced on the *Information and Documentation Requirements by Project Type* (page 9 of this application).

2. Alternative Actions

The NEPA process requires that at least two alternative actions be considered that address the same problem/issue as the proposed project. In this section, list **two feasible** alternative projects to mitigate the hazards faced in the project area. One alternative is the "No Action Alternative".

1. No Action Alternative

Discuss the impacts on the project area if no action is taken.

No Action
No action will result in the continued problems outlined in paragraphs above. Monroe County will continue to suffer delays in making its makeshift EOC operational within an hour.

2. Other Feasible Alternative

Discuss a feasible alternative to the proposed project. This could be an entirely different mitigation method or a significant modification to the design of the current proposed project. Complete *all* of parts **a-e** (below) and include engineering details (if applicable).

a. Project Description for the Alternative

Describe, in detail, the alternative project. Also, explain how the alternative project will solve the problem(s) and/or provide protection from the hazard(s).

Other Feasible Alternative: 1) Retrofit the existing MGC/EOC to meet Category 5 2003 Florida Building & ASCE 7-98 Codes & Applicable Standards. Problem: MGC Building already constructed to 1988 Standard Building Code; 2) Rent commercial property to house an EOC facility. Problem: There are no Category 5 suitable commercial properties in Monroe County to rent.

b. Project Location of the Alternative (describe briefly)

☐ Attach a map or diagram showing the alternative site in relation to the proposed project site

☐ Photographs (2 copies) of alternative site

No alternative project location is available

c. Scope of Work for Alternative Project

See **2a.above**

d. Impacts of Alternative Project

Below, discuss the impact of this alternative on the project area. Include comments on these issues as appropriate: Environmental Justice, Endangered Species, Wetlands, Hydrology (Upstream and Downstream surface water Impacts), Floodplain/Floodway, Historic Preservation and Hazardous Materials.

e. Estimated Budget/Costs for Alternative Project

In this section, provide details of all the estimated costs of the alternative project (round figures to the nearest dollar).

1. Materials

Item	*Dimension*	*Quantity*	*Cost per Unit*	*Cost*

2. Labor (Include equipment costs -- please indicate all "soft" or in-kind matches)

Description	*Hours*	*Rate*	*Cost*

3. Fees Paid Include any other costs associated with the project.

Description of Task	*Hours*	*Rate*	*Cost*

Total Estimated Project Cost $_ _

Attach any continuations or additional items to this page (Form No. HMGP/FMA-001. Eff. 10/30/04)

Retrofits to Existing Facilities/Structures ***Elevations*** ***Acquisitions with Demolition***
✓ Dates of Construction ✓ Concurrence from State Historic Preservation Officer if structure is 50 years or older or if work to be done is outside the existing footprint.

Drainage Improvements
✓ Engineering plans/drawings ✓ Permit or Exemption letter to address any modifications to water bodies and wetlands o Department of Environmental Protection o Water Management District o U.S. Army Corps of Engineers ✓ Letter from State Historic Preservation Office addressing archeological impacts. ✓ Concurrence from U.S. Fish and Wildlife addressing any impacts to wildlife, particularly endangered and threatened species and their habitats. ✓ If the project is in coastal area, attach a letter from the National Marine Fisheries Service addressing impacts to marine resources. ✓ Concurrence from Natural Resource Conservation Service if project is located outside city limits and may impact prime or unique farmland.

Note: ***This is a general guideline for most projects. However, there will be exceptions. Consult with environmental staff on project types not listed.***

Section V. Maintenance Agreement

All applicants whose proposed project involves the retrofit or modification of existing public property or whose proposed project would result in the public ownership or management of property, structures, or facilities, must first sign the following agreement prior to submitting their application to FEMA.

(NOTE: Those applicants whose project only involves the retrofitting, elevation, or other modification to private property where the ownership will remain private after project completion DO NOT have to complete this form.)

The County of Monroe, State of Florida, hereby agrees that
(City, Town, County)
if it receives any Federal aid as a result of the attached project application, it will accept responsibility, at its own expense if necessary, for the ***routine*** maintenance of any real property, structures, or facilities acquired or constructed as a result of such Federal aid. Routine maintenance shall include, but not be limited to, such responsibilities as keeping vacant land clear of debris, garbage, and vermin; keeping stream channels, culverts, and storm drains clear of obstructions and debris; and keeping detention ponds free of debris, trees, and woody growth.

The purpose of this agreement is to make clear the Subgrantee's maintenance responsibilities following project award and to show the Subgrantee's acceptance of these responsibilities. It does not replace, supercede, or add to any other maintenance responsibilities imposed by Federal law or regulation and which are in force on the date of project award.

Signed by _____ the duly authorized representative
(printed or typed *name of signing official*)

Mayor
_____,
(*title*)

this _____ (*day*) of _____ (*month*), _____ *(year)*.

Signature*_____

Please note: The above signature must be by an individual with legal signing authority for the respective local government or county (e.g., the Chairperson, Board of County Commissioners or the County Manager, etc.)

Please fill out this worksheet completely. A separate worksheet is required for each structure to be wind retrofitted.

☒ Attach photographs (two copies) of each side of the building to be retrofitted.
☐ Provide evidence that the shutter system complies with the Dade County Specifications. *The best evidence of this is a certificate issued by the Dade County Building Department stating that the proposed shutter products have been tested, approved, and comply with the Dade County Specifications. Non-certified shutters or products cannot be used.*

Fill out the table below. NOTE: *All shaded line items are required to process the application)*

A. Project Information	
(1) Building Name	Monroe County BOCC/Emergency Operations Center (EOC)
(2) Address	2798 Overseas Highway
(3) City, State and Zip	Marathon, FL 33050
(4) Owner/Applicant	Monroe County
(5) Contact Person	Thomas P. Cullen, Jr.
(6) Disaster Number	FEMA FY 2005
(7) Project Number	MCEOC HMGP-001
(8) Application Date	April 29, 2005
(9) Analyst	James R. Brush, P.E.
B. Building Data	
(1) Select Building Type	☐ **Non-Engineered Wood** - Wood buildings do not receive specific engineering attention. Examples include single and multi-family residences, some one- or two- story apartment units, and some small commercial buildings.
	☐ **Non-Engineered Masonry** - These masonry buildings do not receive specific engineering attention. Examples include single and multi-family residences, some one- or two- story apartment units, and some small commercial buildings.
	☐ **Manufactured Building** - These buildings are typically light metal structures or manufactured housing units (e.g., mobile homes). Manufactured buildings are produced in large numbers of identical or similar units.
	☐ **Lightly Engineered** - These buildings may combine masonry with steel framing, open-web steel joists, wood framing, and wood rafters. Some parts of the building receive engineering attention while others do not. Examples include motels, commercial, and light industrial buildings.
	☒ **Fully Engineered** - Usually these buildings are designed for a specific site and thus receive specific, individualized design attention from professional architects and engineers. Examples include high-rise office and hotel buildings, hospitals, and most public buildings.
	☐ **Other** - These buildings do not fit into any of the descriptions listed above.
(2) Building Site (Miles Inland)	0.085 (450 feet from the Gulf of Mexico
(3) Number of Stories Above Grade	Two
(4) Construction Date	1992
(5) Historic Building Controls	None

C. Building Size and Use	
(1) Total Floor Area (SF)	24,000
(2) Area Occupied by Owner or Public/Non-Profit Agencies	24,000

B. Building Data	
(6) Disaster Number	1539

Wind Retrofit Worksheet - *HMGP only* ***WIND RETROFIT PROJECTS ONLY***

D. Building Value	
(1) Building Replacement Value	$10,920,000
(2) Demolition Threshold	

E. Building Contents	
(1) Contents Description	Computers, Furniture, TV Studio, HVAC, Equipment
(2) Total Value of Contents	@30%= $3,090,000

F. Displacement Costs Due to Wind	
(1) Rental Cost of Temporary Building Space ($/sf/month)	N/A
(2) Other Displacement Costs ($/month)	N/A

G. Value of Public Non-Profit Service	
(1) Description of Services Provided	Disaster Preparedness & Response, Recovery
(2) Annual Budget of Public Non-Profit Agencies	$517,444
(3) Post Disaster Continuity Premium ($/day)	$36,900; a multiplier of 10 for a critical facility

H. Rent and Business Income	
(1) Total Monthly Rent from all Tenants ($/month)	None
(2) Estimated Net Income of Commercial Businesses ($/month)	None

I. Mitigation Project Data	
(1) Project Description	Relocate the EOC
(2) Project Useful Life (Years)	50
(3) Mitigation Project Costs	$6,046,980
(4) Base Year of Costs	2005

Attach any continuations or additional items to this page

Monroe County Florida Emergency Operations Center (EOC)

Narrative for Hazard Mitigation Grant Program (HMGP) Application

Project Name: "Relocation of the Emergency Operations Center, Marathon Florida"

Overview

Monroe County does not have a permanent and dedicated Emergency Operations Center (EOC). Currently, a room in a government building in Marathon Florida, known as the Board of County Commissioners (BOCC) room, is turned into a makeshift temporary EOC when an emergency situation arises. Converting this BOCC room into an EOC every time an emergency arises is a time consuming and labor intensive process, often conflicting with other community activities that simultaneously take place in the room. The EOC setup process results in delays (ranging from 8 to 24 hours) in responding to Monroe County emergencies. EOCs should be activated as soon as possible to ensure that rapid decision making can occur. The EOC must be activated within one hour as required by a Memorandum of Understanding between the County and State.

The Monroe County office of Emergency Management serves as the central clearinghouse for all public information in the event of any emergency and as the coordinating center for all disaster control and response programs ranging from an accident at Turkey Point nuclear power plant to a tropical storm.

Project Description

The project consists of the relocation of the existing EOC to a permanent, complete and usable Emergency Operations Center (EOC) to serve as a multi-use critical facility housing an emergency response team comprised of six (6) Monroe County fulltime Emergency Management staff. The proposed relocated facility, located at the Marathon Airport, will be capable of meeting and withstanding any anticipated emergency to a hurricane Category 5 level of protection and located above the flood AE zone stillwater elevation.

Monroe County Emergency Management provides planning and preparedness for, and coordination of response activities to events which threaten the health and safety of Monroe County residents and visitors, and which may damage property and affect the economy within the County. These events include: hurricanes, tornadoes, terrorist activities, waterspouts, mass immigration, hazardous materials accidents tanker truck spills that shut down of transportation routes, large fires, air crashes, civil disorders, a possible accident at the FP&L Turkey Point Nuclear Power Plant.

Emergency Management works closely with local fire-rescue and law enforcement agencies, five municipalities as well as state, federal, and private agencies, in all phases of emergency management: preparedness, response, recovery, and mitigation.

The relocated facility will serve as a permanent and dedicated Command Center equipped to manage all of Monroe County's response and recovery plans, information, and resources. The relocated dedicated Emergency Operations Center will serve to protect the lives and property of residents and visitors of Monroe County.

Background of Monroe County Emergency Management Operations and Existing Problems

The existing makeshift EOC in the BOCC Meeting room on the second floor of the Marathon Government Center (MGC) located at 2798 Overseas Highway (Gulf Side) has several problems:

- **Originally Planned EOC on a Third Floor of MGC was Never Constructed.** The originally planned EOC was to withstand Category 5 hurricanes and be the third floor of the new MGC building. The building was constructed using 1988 design codes. The additional third story had a height exceeding County Ordinances and required a variance. The variance was never granted and the building was redesigned to remove the EOC third floor from the construction plans. Since the EOC floor was removed, there was no longer a need to make the building withstand a Category 5 event. The EOC is intended to be occupied during the Category 5 hurricane.

- **The Makeshift EOC in the BOCC Room Requires Setup Causing Delays in Emergency Response.** A delay in setting up the EOC room, exceeding one hour, is not consistent with a Memorandum of Understanding between the County and the State requiring one hour activation time.

- **BOCC Room Serves as a Community Meeting Room Which Conflicts with Use as an EOC.** The Emergency Management team was uprooted from their makeshift BOCC/EOC room at the third week of the Hurricane George disaster, during the recovery phase, and was forced to move and setup another temporary EOC. It was reported that County meetings had to be held in the BOCC Room.

- **The Second Floor BOCC Room may become Inaccessible due to Flooding.** The computer model TAOS indicted that the makeshift EOC/BOOC room would have four feet of water during a Category 5 event. It is reported that during Hurricane George, the ground floor was flooded and hindered access to the second floor BOCC/EOC.

- **The BOCC Room has no dedicated Emergency Management Equipment or Computers.** Emergency Management manuals, computers, reference materials, and communications/ warning equipment, TV displays, maintenance/spare parts, protective/safety gear, food and water, medical equipment/supplies, office furnishings/equipment/supplies must be gathered from various locations around the County and transported to the BOCC room each time an emergency is declared. Many times computers have not worked upon their setup in the makeshift EOC. Personnel are often not available to set up the makeshift EOC/BOCC room.

Hazards to be Mitigated/Level of Protection

Hazards to be mitigated by the proposed project will be a combination of wind damage and flood damage. The EOC structure will provide above the 100 year flood level of protection and wind protection up to 155 mph winds.

Project Location

The proposed relocated facility will be located at the Marathon Airport with frontage along Federal Highway US No.1, with airport runway access on the back side of the property, and centrally located within Monroe County. The advantages of the site include: 1) Site already owned by the County, 2) quick access to aviation assets such as helicopters, C-130 aircraft for evacuations, access for medical evacuations, 3) site has one of the highest elevations above sea level in Marathon, 4) centrally located in the County for designated rapid responders arrival at the EOC.

The Flood Insurance rate maps (FIRM), a site location map, a County Map, a USGS topographical map, various pertinent drawings, data, etc., maps, and site photographs are presented in the Appendices to the Application.

Scope of Work, Project Budget/Costs, Project Schedule, and Funding Sources

The project consists of relocating the existing EOC to different site and initiating the design/build construction of a complete and usable dedicated Emergency Operations Center (EOC) to serve as a multi-use critical facility housing of an emergency response team comprised of six (6) fulltime Monroe County Emergency Management staff and up to 50 emergency response personnel during the emergency event.

Scope of Work

The EOC Building will be an elevated one-floor structure with approximately 20,000 square feet of usable interior floor space. The facility will consist of two distinct structural elements. The inner first portion of the floor will be the primary functioning EOC and an outer perimeter which contains the support areas. The outer portion will consist of support areas such as offices, sleeping quarters, and meeting spaces and will surround the EOC core. The exterior wall system would have pre-cast concrete and the walls of the core primary and support areas of the EOC would be solid grout-filled concrete masonry unit (CMU) construction.

The foundation would be elevated pilings with a cast-in-place floor slab. Site development would include all building utilities connected to area utilities system, parking areas with asphaltic concrete paving, concrete sidewalks and landscaping. Also included would be a standby diesel or propane powered generator, 5000 gallon fuel storage tank, a 10,000 gallon sanitary waste storage tank, a 10,000 gallon potable water storage tank, a 15,000 gallon fire suppression water storage tank, interior building fire suppression sprinkler system, and a filtered air system. The proposed EOC Layout/Floor Plan is presented in the Appendices to the Application.

Not included in the project at this time, are sleeping accommodations, kitchen equipment, food supply area, computers/communications/warning equipment, fiber optics cable leading to an off-site free standing communications tower, EOC display equipment, a kennel, media room, personnel offices, medical equipment/supplies, maintenance equipment, spare parts, special response gear, clothing or testing/monitoring equipment and janitorial services and supplies.

The project estimated dollar value is $6,046,980 and the estimated project schedule completion period is 730 days, two (2) years, after a Notice-to-Proceed is issued.

Project Budget/Costs

The project budget is as follows:

Item	*Dimension*	*Quantity*	*Cost per Unit*	*Total Cost*
• Site Development, Utilities, & Building Construction	Sq Ft	20,000	$270	$5,400,000
• Storage Tanks, Generator, Air filter System, Sprinkler System, & Peripherals.	LS	LS		180,000
	TOTAL ESTIMATED CONSTRUCTION COST			**$5,580,000**
	Engineering (@ 5.1%) includes survey & geotechnical			*$284,580*
	Permitting			*$15,000*
	Construction Inspection (@ 3%)			*$167,400*
	Total Engineering and Inspection Services			**$466,980**
	TOTAL ESTIMATED PROJECT COST			**$6,046,980**

Project Schedule and Funding Sources

- **Project Schedule...** The major milestones in this project are as follows:

Milestone	*Number of Days to Complete*
Preliminary Engineering and Survey	60
Engineering/Architectural Design	180
Permitting	50
Bidding of Design/Build Construction Project	50
Construction	360
Demobilization and Project Completion Approval	30
Total Days	730

- **Funding Sources...** FEMA 75% - Monroe County will develop the 25% local share of the funding and will be applying for other funding sources such as DHS.
- **Alternative Actions...**

  No Action

  No action will result in the continued problems outlined in the paragraph above.

  Other Feasible Alternative 1) Retrofit the existing MGC/EOC to meet Category 5 2003 Florida Building & ASCE 7-98 Codes & Applicable Standards. *Problem: MGC Building already constructed to 1988 Standard Building Code; 2)* Rent commercial property to house an EOC facility. *Problem*: There are no Category 5 suitable commercial properties in Monroe County to rent.

Basis for Mitigation Project Cost, Maintenance Costs, Building Replacement Value, Building Damage that Would Result in Demolition,and Contents Value

Mitigation Project Cost and Maintenance Costs

The Mitigation Project Cost is "Estimated total cost of the proposed action (**not just the Federal share**) and any maintenance activities that will be done to prolong effectiveness." (Reference: FEMA's *Data Documentation Template, Hurricane/Wind Data Analysis Methodology, August 2003 page 2 of 7).*

The categories of building types presented in Means Cost Data do not adequately simulate the project situation of building a Category 5 Hurricane Resistant Building in the Florida Keys. Commercial building types range from $120/SF for a Fire Station, $167/SF for a Bank, $206/SF for an Engineering College, $241/SF for a Hospital, $232/for a Jail, to $1,350/SF for a Power Plant. (Reference: Pages 483 through 491 of Division 17 of RS Means Building Construction Cost Data 2003. The base figure from Means Building Construction Cost Data 2003 are adjusted in view of special conditions for construction in the Florida Keys, local economic conditions, and special Category 5 Hurricane Code requirements. The building cost used in the B/C module includes the basic building shell, plus plumbing, heating, ventilation, air conditioning and basic electrical.

To calibrate the nationwide cost estimates given in 2003 Means Cost Data, comparative cost estimating sources were used to fine tune the project mitigation cost. The County Engineer/Building Department for Monroe County gave an estimate of $200 per square foot for a relocated EOC Building. Also, an actual building constructed in 2003 in Key West, Florida was used in calibrating the project cost used in the B/C module. The actual building (City of Key West Public Safety Facility) is reported to have been constructed as a Category 5 hurricane resistant building and also serves as the City's EOC. The project involved 25,000 square feet of space and the construction cost bid was $4,450,000 (or $178/sq.ft), not including any engineering, permitting, or inspection. However, it is reported that the contractor lost money and required change

orders which increased the final cost. Copies of supporting documentation from *RS Means Square Foot Cost Guidebook, RS Means Facilities Construction Cost Data, and RS Means Building Construction Cost Data 2003* are attached to this narrative. An estimated construction cost of $270 per square foot is used in the B/C module. The maintenance cost used in the B/C module was derived from *RS Means Facilities Construction Cost Data's* Section R018 Maintenance. (See copy attached.)

Building Replacement Value, Building Damage that Would Result in Demolition, and Contents Value

The building replacement value is "the cost for labor and materials to build a similar building at the same location." (Reference: FEMA's *Data Documentation Template, Hurricane/Wind Data Analysis Methodology, August 2003 page 3 of 7)*

The value to replace the building includes the extra cost for upgrading to a Category 5 and for structure demolition and debris removal to an acceptable site. The demolition cost is based on RS Means Building Construction Cost Data 2003 pages 35 through 36 and includes superstructure, footings, foundation slab, internal walls, a factor for work in a congested area, and assumes that construction debris is trucked to a site within 5 miles of the site. The derivation of the demolition and disposal cost yields $2,220,000, which is added to the cost to rebuild the existing MGC/EOC at the same location. It is unlikely that a disposal site within 5 miles of the site could be found in the Florida Keys. Most areas are environmentally sensitive and mass dumping would not be allowed. Therefore, the costs used in the B/C module for replacement and demolition are probably low because in actuality debris would need to be trucked to the mainland approximately 100 to 150 miles away. The Content Value of 30% of building cost using the FEMA standard is used in the B/C module.

Benefit/Cost Analysis and Cost Effectiveness

The following discussion items pertain to the Benefit/Cost (B/C) Module Attachment and present assumptions and data input used in the Module. (Reference: FEMA Guidance Document, "What is a Benefit Draft Guidance" 2003 and FEMA's *Data Documentation Template, Hurricane/Wind Data Analysis Methodology, August 2003.)* For the purpose of modeling the B/C analysis, the project is treated as a Relocation "*Demolition-Rebuild*" Project. In other words, the various hurricanes (Cat 0 through 5) produce damages to the existing MGC/EOC building to the point of needing to relocate the EOC at another location and rebuild.

Physical Damages

Physical damage estimates for EOCs and emergency shelters are generally similar to those for ordinary buildings. If the EOC or shelter is designed to higher than normal building code standards, then professional judgment must be used to make appropriate estimates of damages, before and after mitigation. Contents damage estimates for EOCs are also generally similar to those for ordinary buildings. The entire MGC/BOCC building is used for EOC purposes during disaster events, not just the BOCC room. FEMA module default values are used in the B/C analysis,

except where the wind-damage function involves the newly constructed Category 5 EOC building. It is reasonable to assume that damages after the event to a Category 5 building would be minimal compared to a residential house. The module is geared toward modeling damages to a house. Therefore, engineering judgment is used to fill in the User-Entered WDF percentages for estimated damages after the event.

Loss of Function Impacts

In principle, the public services provided by EOCs are subject to being displaced to temporary quarters due to disaster damages, just like any other public service. In practice, however, the operation of EOCs is typically only for short periods of time immediately before, during, or after disaster events. Furthermore, because of the specialized, temporary function of EOCs, displacement to temporary quarters may not be physical possible, during the brief periods that the EOC would normally operate in a single disaster event. Loss of function for an EOC building that operates approximately 14 days per year is minimal and User-Entered data is entered into the module based on judgment.

Loss of Public Services

- **Functional Downtime...** Functional downtime estimates for the EOC are different from those for ordinary buildings because EOCs and are typically used only for short periods of time before, during and/or after disaster events. Functional downtimes for EOCs and shelters cannot be longer than the typical duration of use. The functional downtime used in the B/C considers the 8 to 24 hour lag period before the EOC can be activated and a seven (7) day period of displacement similar to that which occurred during Hurricane George.

- **Value of Services...** As with any public building, the base value of the service provided by an EOC is estimated from the daily cost of providing the service. However, unlike other public services, EOCs are used only for brief periods of time before, during or after disaster events. For ordinary public buildings, the daily cost of service is estimated by dividing the annual operating budget of a facility by 365 days per year.

  "For EOCs the daily cost of service is estimated by dividing the annual operating budget by the typical or average number of days of use per year." *(Ref. Page 5-5 of FEMA "What is a Benefit Draft Guidance".)*

  For Monroe County, the Office of Emergency Management has an annual operating budget (i.e. cost) of $517,444 per year and is activated an average of two to three weeks or 14 to 21 days per year, based on historical data. Therefore, the average daily cost of service is $36,960 per day (when used) for any 14 day period. In this case, the average value of the EOC services is estimated at $36,960 per day. As with any public services, the annual operating budget for an EOC includes annual costs for equipment, supplies, utilities, administrative and training costs and other operating costs, as well as the salary and benefit-costs of personnel when the EOC is activated. EM staff provides services 365 days per year, analogous to firemen who are on standby most of the time, waiting for the fire. The B/C module was adjusted to reflect a 14 day EOC activation by applying a multiplier to the 365 day per year formula.

- **Continuity Premium...** The Monroe County EOC is the single most critical facility for the County in response and recovery from natural and man-made disasters. Monroe County has experienced several emergency response events in the last ten years including six (6) Presidential Disaster Declarations [Hurricanes Andrew (1992), Gordon (1994), Opal (1995), Irene (1999) and Georges (1998), and the Winter Storm of 1993]. Additionally, there were 3 Declarations made by the Governor of the State of Florida, a 2001 Wildfire along 18-mile Stretch US Highway No.1, several Tanker Truck rollovers which closed the only roadway into or out of the Keys for up to 12 hours. One of these occurred as Hurricane Debby was approaching. The County has also experienced several Tornado events. Because of our proximity to Cuba, we are extremely vulnerable to mass migrations from that Island Nation and others in the Caribbean. The Mariel Boatlift deposited 120,000 migrants in South Florida, a significant percentage arriving in the Keys. Since then, thousands more have arrived, usually in small numbers each day, but there have been two involving over 1000. Monroe County remains highly vulnerable to a wide variety of natural disasters. In addition, the County is also vulnerable to two major man-made disasters. Part of Monroe County is located within the 10 mile Emergency Planning Zone (EPZ) of the Turkey Point Nuclear Power Plant. Monroe County would be directly affected in the event of any problem associated with this facility. The EOC would respond in conjunction with the Key Largo Fire Station Response Team. Secondly, Monroe County has one major highway linking the Florida Keys to the mainland. The County has experienced ongoing, sometimes weekly, transportation-related hazardous material or gasoline tanker truck spills, and is therefore vulnerable to man-made hazards from accidents along the Highway.

  An EOC does not, by itself, directly reduce damages, losses, or casualties in a disaster. **Rather, by coordinating response efforts, an EOC makes a community's disaster response more efficient and thus is beneficial to the community. Indirectly, an EOC may reduce damages by targeting and implementing preventative measures more efficiently or *reduce casualties by focusing search and rescue operations more efficiently.***

  Clearly, the continuous and uninterrupted operation and use of a permanent EOC is vital to the safety and welfare of the citizens of Monroe County. For these reasons, the default post-disaster continuity premium of ten (10) times the ordinary, daily cost to provide emergency operations services from this facility per day was included in the benefit/cost (B/C) analysis.

Casualties

"...Counting the benefits of avoided casualties may be a substantial fraction of total benefits and thus they should always be counted. Benefits of avoided casualties may also be important for hurricane and tornado mitigation projects because EOCs are intended to be occupied during disaster events." (Ref: Page 5-3 FEMA "What is a Benefit Draft Guidance.) The 2001 FEMA value of $2,710,000 per person's death is used in the B/C Module computation. (Ref: Page 5-8 Table 5.8 FEMA What is a Benefit Draft Guidance.") The FEMA *Data Documentation Template*

for Hurricane/Wind Data Analysis, August 2003 referenced above on page 4 of 7, states that ***the "Dollar Value of a Casualty" should be included in the analysis.***

During a hurricane, it is intended that the existing Marathon Government Center (MGC) BOCC/EOC will be occupied by up to fifty (50) persons during a Category 1, 2, 3,4, & 5 hurricanes other possible disasters. Considering that the MGC reinforced masonry building constructed in 1992 was designed in accordance with the Requirements of the Standard Building Code (SBC) of 1988 and not the Florida Building Code of 2003 nor ASCE 7-98, there is some uncertainty whether the building can withstand Category 4 or 5 hurricanes. It is reasonable, considering that the MGC/EOC Building was designed to comply with the1988 SBC Code, not the 2003 FBC nor ASCE 7-98, that the building has experienced settlement, that cracks have appeared in the exterior reinforced block walls and stucco finish on all sides of the building, that at least one casualty out of 50 occupants could occur during a Category 4 or 5 hurricane.

Environmental Review

National Environmental Policy Act (NEPA) Documents

The Project will comply with NEPA and associated Federal, State and local statutes. Contact with the appropriate agencies as outlined in the HMGP Application Environmental Review Section will be initiated by letter.

Maintenance Agreement

Monroe County will be responsible for the routine maintenance of the relocated EOC facility as specified in the Maintenance Agreement Section of the Application.

Conclusion

Upon completion of the Hurricane Wind Full Data Module B/C analysis for the proposed mitigation project, *without considerations of casualties*, a benefit/cost ratio of 1.03 was computed, using a $6,046,980 mitigation project cost, a 50-year project useful life for a public structure, and a 7% discount rate. Without factoring in the possibility of at least one (1) casualty, the benefit/cost analysis results in the following:

SUMMARY OF BENEFITS AND COSTS WITHOUT CASUALTIES AVOIDED

PROJECT BENEFITS	**$6,228,389**
PROJECT COSTS	**$6,046,980**
BENEFITS MINUS COSTS	**$181,409**
BENEFIT-COST RATIO WITHOUT CASUALTIES AVOIDED	**1.03**

When factoring in the possibility of at least one (1) casualty, the benefit/cost analysis results in the following:

SUMMARY OF BENEFITS AND COSTS WITH CASUALTIES AVOIDED

CASUALTY DEATHS AVOIDED	**ONE (1)**
PROJECT BENEFITS (2001 FEMA VALUE OF $2,710,000 PER PERSON)	**$2,710,000**
PROJECT BENEFITS WITHOUT CASUALTIES AVOIDED	**$6,228,389**
PROJECT BENEFITS WITH CASUALTIES AVOIDED	**$8,938,389**
PROJECT COSTS	**$6,046,980**
BENEFITS MINUS COSTS	**$2,891,409**
BENEFIT-COST RATIO WITH ONE CASUALTY AVOIDED	**1.48**

When factoring in the possibility of 50 casualties (i.e. EOC occupancy during a category 5 Hurricane), the benefit/cost analysis results in the following:

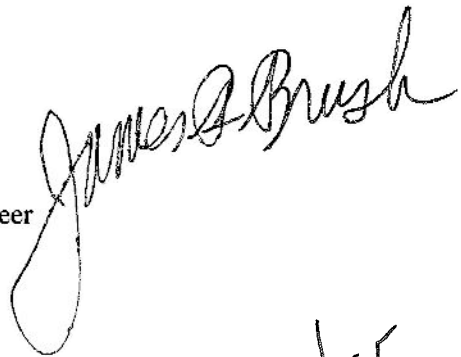
PROJECT BENEFITS FOR 50 CASUALTIES AVOIDED (50 x $2,710,000)	**$135,500,000**
TOTAL PROJECT BENEFITS WITH 50 CASUALTIES AVOIDED	**$141,728,389**
BENEFIT-COST RATIO WITH 50 CASUALTIES AVOIDED	**23.4**

Based on this result, the project is a cost effective hazard mitigation measure and would solve the problems of conflict of use of the BOCC room, delayed activation times, and provide protection of EOC personnel occupying the relocated EOC during Category 4 or 5 hurricanes.

Engineer's Certification

This Engineering Report describes a project in conceptual phase of design and is considered to be a viable, cost-effective, and feasible solution to the problems described. The ultimate design, construction, and management of the project, to the best of my knowledge and belief, will conform to applicable codes and design requirements for a Category 5 Hurricane. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

James R. Brush
Professional Engineer
Florida No. 48504
Seal:



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